We All Make Mistakes, But We're Not All Human: The Influence of Voice-based Assistant's Mistake on Anthropomorphism: An Abstract

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Abstract In 2021, at least 132 million individuals in the USA used voice-based assistants in some form or the other (eMarketer, 2022). Alexa, Cortana, Siri, Bixby, and Google Assistant are some of the most prominent voice-based assistants that are integrated into the everyday lives of most individuals. While these voice-based assistants perform many important tasks in their day-to-day lives, they are also known to make frequent mistakes (Charlton, 2019). For example, they often make mistakes in processing human commands and ask users to repeat their questions multiple times. How do consumers react to such mistakes? Research on voice-based assistants (VA) is still nascent and has only recently started exploring their influence and impact in a marketing context (Moriuchi, 2019; Dellaert, 2020; Tassiello et al., 2021; Whang & Im, 2021). To the best of our knowledge, no research in marketing has studied the influence of VA's mistakes on anthropomorphism perceptions.

According to Foehr and Germelmann (2020, p. 182), voice-based assistants can be conceptualized as "technologically based on artificial intelligence systems that react to consumers' voices and are able to adapt to individual consumer habits and needs over time, they possess some degree of autonomy, and they consist of a software component and a hardware component." The current research proposes a framework to categorize VA's mistakes and empirically tests how these mistakes influence user perceptions. In particular, this research aims to understand the effects of three different types of VA mistakes resulting from incorrect output from a VA on perceptions of anthropomorphism. Grounded in SEEK theory of anthropomorphism, the current research demonstrates the positive effect of VA failures on anthropomorphism perceptions. Furthermore, based on descriptive gender stereotypes, the current research also illustrates the existence of gender stereotypes that users hold for VA. Particularly, the current research demonstrates that gender cues

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such as the voice of the VA (male vs. female) enhance the effect of mistakes on anthropomorphism perceptions.

The proposed research has two main theoretical contributions. This research contributes to the anthropomorphism literature by empirically demonstrating that a mistake by VA lead to higher anthropomorphism. Additionally, this research proposes the 'suggestive' gender of the VA influences anthropomorphism perceptions. By doing so, the current research also contributes to the literature on descriptive norm stereotypes and illustrates the exitance of gender stereotypes among VA technology.

Keywords Voice-based assistant · Anthropomorphism · AI

References Available Upon Request